

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



PCT

(43) International Publication Date
23 December 2004 (23.12.2004)

(10) International Publication Number
WO 2004/111182 A3

(51) International Patent Classification⁷: C12P 19/34, C07H 21/04

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/IL2004/000515

(22) International Filing Date: 15 June 2004 (15.06.2004)

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

(30) Priority Data: 60/479,224 16 June 2003 (16.06.2003) US

(71) Applicant (for all designated States except US): QUARK BIOTECH, INC. [US/US]; 6536 Kaiser Drive, Fremont, CA 94555 (US).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(72) Inventors; and
(75) Inventors/Applicants (for US only): EINAT, Paz [IL/IL]; 1/27 Neve Nir, 74042 Nes Zionna (IL). ZEVIN-SONKIN, Dina [IL/IL]; 2/3 Hahagana Street, Rehovot (IL). GILAD, Shlomit [IL/IL]; P.O.B 3500, Tel Nof, 70700 Gedera (IL).

(88) Date of publication of the international search report: 24 February 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

WO 2004/111182 A3

(54) Title: METHODS FOR CLONING NUCLEIC ACIDS IN A DESIRED ORIENTATION

WO

(57) Abstract: The present invention provides highly accurate methods for cloning nucleic acids in a desired, pre-defined orientation, and additionally provides for a library of cloned oriented nucleic acids. The ability to control the orientation of a nucleic acid being cloned is highly important in various molecular biology applications.